AMENDMENTS TO THE CLAIMS

Please amend the claims to read as follows:

1. (Withdrawn) An in vivo camera system comprising:

an imager having a variable frame capture rate for producing frames;

at least one sensor for measuring a physical property relatable to the motion of said camera system;

a data processor in communication with said sensor for determining a frame capture rate in response to output of said sensor; and

a controller for providing said determined frame capture rate to said imager.

2. (Withdrawn) A system according to claim 1, wherein said sensor is an accelerometer.

3. (Withdrawn) A system according to claim 2, and including an integrator in communication with said accelerometer for generating the velocity of said in vivo camera system.

4. (Withdrawn) A system according to claim 1, wherein said sensor is a pressure sensor.

5. (Withdrawn) A system according to claim 1, wherein said sensor is an induction coil and said in vivo camera system is moving in a magnetic field.

6. (Withdrawn) A system according to claim 1, wherein said sensor is an ultrasound transducer.

7. (Withdrawn) An in vivo camera system comprising:

an imager having a variable frame capture rate for producing frames;

a storage device for storing frames captured by said imager;

an image processor for calculating the required frame capture rate from at least two frames; and

a controller for providing said calculated frame capture rate to said imager.

8. (Currently Amended) A display system for displaying the output of an in vivo camera system, the display system comprising:

a ~~frame~~ storage unit for storing data of frames of output of said camera system;

an image processor for correlating ~~frames~~ the data of said output to determine the extent of their similarity and for generating a frame display rate therefrom, wherein said frame display rate is slower when said ~~frames~~ data are generally different and faster when said ~~frames~~ data are generally similar; and

a display unit for displaying said frames received from said ~~frame~~ storage unit ~~at said frame display rate~~.

9. (Currently Amended) A display system according to claim 8 wherein said ~~at least two~~ frames are two consecutive frames.

10. (Currently Amended) A display system according to claim 8 wherein said ~~at least two~~ frames are two non-consecutive frames.

11. (Currently Amended) A display system according to claim 8 further comprising a controller in communication with said ~~frame~~ storage and said image processor, wherein said controller varies said display rate of said display unit.

12. (Withdrawn) A system according to claim 1 further comprising a display system comprising:

a frame storage unit for storing at least two frames of output of said camera system;

an image processor for correlating at least two frames of said output to determine the extent of their similarity and for generating a frame display rate correlated with said similarity, wherein said frame display rate is slower when said frames are generally different and faster when said frames are generally similar; and

a display unit for displaying said frames received from said frame storage at said frame display rate.

13. (Withdrawn) An in vivo camera system according to claim 7 further comprising a display system comprising:

a frame storage unit for storing at least two frames of output of said camera system;

an image processor for correlating at least two frames of said output to determine the extent of their similarity and for generating a frame display rate correlated with said similarity, wherein said frame display rate is slower when said frames are generally different and faster when said frames are generally similar; and

a display unit for displaying said frames received from said frame storage at said frame display rate.

14. (Withdrawn) A method for varying the frame capture rate of a series of frames generated by an in vivo camera system, the system comprising an imager, the method comprising the steps of:

storing said frames in a storage device;

correlating changes in the details of at least two frames;

changing said frame capture rate to a predetermined frame capture rate according to the degree of change between said at least two frames; and

communicating said required frame capture rate to said imager.

15. (Withdrawn) A method according to claim 14 wherein said at least two frames are consecutive frames.

16. (Withdrawn) A method according to claim 14 wherein said at least two frames are non-consecutive frames.

17. (Withdrawn) A method for varying the frame capture rate of a series of frames generated by an in vivo camera system, the system comprising an imager, the method comprising the steps of:

measuring a physical quantity experienced by said camera system;

converting said physical quantity to a velocity of said camera system;

correlating said velocity with a predetermined frame capture rate; and

communicating said predetermined capture rate to said imager.

18. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the steps of measuring acceleration and generating velocity data from said acceleration data.

19. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring acceleration.

20. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring pressure.

21. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring induced current when the camera system is moving in a magnetic field.

22. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring the motion of said camera system with an ultrasound transducer.

23. (Currently Amended) A method for varying ~~the~~ a frame display rate of ~~a series of~~ frames generated by an in vivo camera system, the method comprising the steps of:

storing said frames ~~in a storage device~~;

correlating ~~changes in the details of~~ at least two frames; and

communicating said ~~required~~ frame display rate ~~to said storage device and a display unit~~.

24. (Original) A method according to claim 23 wherein said at least two frames are consecutive frames.

25. (Original) A method according to claim 23 wherein said at least two frames are non-consecutive frames.

26. (Currently Amended) A method according to claim 23 ~~wherein said step of communicating said required frame rate comprises the step of requiring the display of at least one frame a predetermined number of times~~ comprising displaying one frame repeatedly.

27. (Currently Amended) A method according to claim 23 ~~wherein said step of communicating said required frame rate comprises the step of~~ comprising eliminating display of ~~at least one~~ a frame.

28. (Withdrawn) An in vivo camera system according to claim 1, and also including an antenna array, said array receiving data from said sensor and communicating said data to said data processor.